

BIBIK, N.F.

Rationalization of the preparation and pouring of a blood medium for
cultivating Mycobacterium tuberculosis. Lab. delo 8 no.4:38-39 Ap '62.
(MIRA 15:5)

1. Yablunovskiy tuberkuleznyy sanatoriy, Ternopol'skaya oblast'.
(MYCOBACTERIUM TUBERCULOSIS)
(BACTERIOLOGY--CULTURES AND CULTURE MEDIA)

BIBIK, V.F.

Category : USSR/Electronics - Photoeffect. Electron and Ion Emission

H-2

Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 4266

Author : Borzyak, P.G., Bibik, V.F., Kramarenko, G.S.

Inst : Institute of Physics , Academy of Sciences Ukrainian SSR, Kiev

Title : Investigation of the Fatigue of Silver-Oxygen-Caesium Photocathodes

Orig Pub : Radiotekhnika i elektronika, 1956, 1, No 3, 358-369

Abstract : Based on many observations of phenomena occurring during the fatigue of oxygen-silver-caesium photocathodes (changes in the spectral characteristics and in the contact potential of the cathode, changes in the sensitivity of portions of the cathode that are not subjected to illumination during the fatigue process, fatiguing action of infrared illumination, and phenomena of illumination aftereffects) the authors reach the conclusion that the ideas proposed by de Boer concerning the fatigue mechanism of such photocathodes are not adequate. Considering that an important role in the fatigue of oxygen-silver-caesium cathodes should be played by processes occurring when light acts on the caesium oxide in the latter, the authors call attention to the need of a fundamental investigation of the physical features of this property. Bibliography, 8 titles.

Card : 1/1

Bibik, V.F.
USSR/Electronics - Electronic and Ionic Emission

H-2

Source Jour : Referat Zhur - Fizika, No 5, 1957, 12286

Author : Borzyak, P.G., Bibik, V.F., Kramarenko, G.S.

Inst : Institute of Physics, Academy of Sciences, Ukrainian SSR.

Title : On the Nature of Silver-Oxygen-Cesium Photocathodes and Their Spectral Sensitivity.

Orig Pub : Dopovidi AN USSR, 1956, No 4, 330-333

Abstract : As a result of an investigation of the optical properties of films of cesium oxide it has been shown that in the ultraviolet region, they have great "intrinsic" absorption. The red boundary of this absorption lies near 600 *mμ*. The forbidden zone for Cs₂O can be estimated at two electron volts. It is shown also that the spectral characteristics of the photocurrent from the cesium oxide consists of two parts -- a short-wave part, due to the "intrinsic"

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USSR/Electronics - Electronic and Ionic Emission

H-2

Abs Jour : Ref Zhur - Fizika, No 5, 1957, 12286

photoeffect; and a long-wave part, connected probably with the "impurity" photoeffect. Comparison of the values for the red boundaries of the optical absorption proper and of the photoeffect has made it possible to estimate the height of the potential barrier above the bottom of the conduction zone for various specimens in a range of 0.6 -- 1.2 electron volts. Adding an optimum amount of silver to the oxygen-caesium film improves the sensitivity of the cathode in the long-wave region so much, that one can speak of the formation of a new photocathode, whose photocurrent flows from the microcrystals of the silver. In the short-wave region, to the contrary, introducing the silver reduces the film sensitivity, because part of the surface turns out to be occupied by the silver crystals, which are less sensitive in this region of the spectrum. The authors believe that the photocathode considered must be represented as consisting of two photocathodes -- a

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USSR/Electronics - Electronic and Ionic Emission

H-2

Abs Jour : Ref Zhur - Fizika, No 5, 1957, 12286

a semiconductor oxygen-cesium one, which determines the sensitivity of the photocathode in the ultraviolet, and a disperse-metallic (particles of silver, coated with a complicate film) which determines the sensitivity of the photocathode in the long-wave region.

Bibliography, 5 titles.

Card 3/3

B. B. K. V. E.

Particularities of the photoeffect in silver-oxide films
 (photoeffect) P. G. Borovsk, V. V. Tobols, and G. S.
 Kiselev. *Izv. Akad. Nauk SSSR, Ser. Fiz. Nauk*, 1957, 20, 1155-49 (1957). — Ag layers, varying from solid to micro-
 dispersed films were condensed on the inside surface of a
 ultraviolet transmitting glass bulb. The red cut-off of Ag
 photoemission is $\lambda = 280$ nm. Cs absorption does not in-
 fluence the optical properties of Ag films. An anomaly of
 transparency appears in light of 465 nm in the transition
 region solid-microdispersed. A transparency band exists
 at 865 nm. The spectral sensitivity curves for Ag films with
 absorbed Cs have a min. at 316 nm and max. at ≈ 340
 and 380 nm. Cs-O layers were also obtained by condensa-
 ing Cs on the spherical wall, oxidizing it to Cs₂O, and treat-
 ing it with Cs vapor above 150° to obtain Cs₂O. Absorption
 and emission curves are shown for Cs₂O and Cs₃O.
 From these tests the half-width of the forbidden zone is
 found to be 2 e.v. From the difference of the absorption edge
 and the photoeffect red limit wave length the height of the
 potential barrier in Cs₂O can be calculated to be 0.5 e.v. and some-
 times to 0.3-0.6 e.v. Some Cs₂O layers are more sensitive
 at 350 nm than Cs-Sb cathodes. The ultraviolet sensitivity
 of Cs₂O is larger than that of Ag-Ce and incorporation of Ag
 into Cs₂O decreases short wave sensitivity but it also in-
 creases long wave sensitivity. Evaporation of Ag on Cs₂O films
 and consecutive heating increases long wave sensitivity but
 does not affect short wave absorption. The photoeffect in
 the long wave max. is enhanced by incorporation of Ag.
 This is attributed to the formation of Cs₂O films around
 aggregated Ag crystallites. The Ag-O-Cs cathode is con-
 sidered as a combination of 2 separate cathodes: a semi-
 conductive cathode of Cs₂O (detg. the ultraviolet sensitivity)
 and a cathode formed by dispersed Ag covered with Cs₂O
 detg. the long wave sensitivity. Introduction of Ag does
 not cure fatigue phenomena. S. Pakswar.

AUTHORS: Borzyak, P. G., Bibik, V. F., Sarbey, O. G. 48-22-5-12/22

TITLE: Photoelectronic Emission of Some Semiconductor and Metal Cathodes With a Diminished Work Function (Fotoelektronnaya emissiya nekotorykh poluprovodnikovyykh i metallicheskiykh katodov s umen'shennoy rabotoy vykhoda) (Data From the VIIIth All-Union Conference on Cathode Electronics, Leningrad, October 17-24, 1957) (Materialy VIII Vsesoyuznogo soveshchaniya po katodnoy elektronike, Leningrad, 17-24 oktyabrya 1957 g.)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1958 Vol. 22, Nr 5, pp. 566-575 (USSR)

ABSTRACT: At present the interest of the physicists is occupied by the electronic processes in semiconductors. Therefore all concerning phenomena must be investigated as perfectly as possible. In view of several difficulties the authors had the idea (reference 1) to enlarge the spectrum range on account of the work function of the photocathode which is to be investigated. A short bibliography (Refs 2, 3) is given. Fig. 1 shows the devices used for this work. The experiments made possible the following conclusion: The application of the method of the work function of electrons from the cathode by means of ducted BaO films makes possible a considerable enlargement of the spectrum

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Photoelectronic Emission of Some Semiconductor and Metal Cathodes With a Diminished Work Function. (Data From the VIIIth All-Union Conference on Cathode Electronics, Leningrad, October 17-24, 1957) 48-22-5-12/22

domain of the photoelectric sensitivity of these cathodes and the shift of the boundary of the spectrum characteristic into the visible domain. A comparative investigation of the metal and semiconductor samples showed that the concentration of the dipole molecules of BaO, which guarantees a minimum of the work function in a metal (Ta), is $1/4$ to $1/5$ of that concentration which provides a work function to a semiconductor. (InSb, Ag₂Te) In case of both kinds of cathodes the lowering of the photoelectric emission starts somewhat before the low point of the work function on occasion of precipitation of BaO molecules on the surface was reached. The spectrum characteristics of metallic photocathodes of the type Me - BaO can be worked after the method by Fowler (Fawler) just as well as in the case of pure metals. Even at a quite long distance from the red limit the sensitivity of the photocathodes of InSb and Ag₂Te is considerably less than the sensitivity of the efficient Cs₂Sb photocathodes, in spite of the known proper character of the photoeffect. In the discussion on this abstract participated: A. A. Mostovskiy, A. I. Pyatnitskiy, Kireyko, N. M. Politova, Ye. A. Krasovskiy, K. B. Tolpygo, I. M. Dykman and the first author.

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Photoelectronic Emission of Some Semiconductor and Metal Cathodes With a Diminished Work Function. (Data From the VIIIth All-Union Conference on Cathode Electronics, Leningrad, October 17-24, 1957) 48-22-5-12/22

There are 8 figures and 6 references, 3 of which are Soviet.

ASSOCIATION: Institut fiziki Akademii nauk USSR
(Institute of Physics AS Ukrainian SSR)

1. Semiconductors--Properties 2. Cathodes (Electron tubes)--Properties
3. Work functions

Card 3/3

9.4177 (1035,1051)

26.2421

33371

S/181/62/004/001/049/052

B112/B138

AUTHORS:

Bibik, V. F., and Borzyak, P. G.

TITLE:

A new type of alternating photoconductivity in cadmium selenide crystals

PERIODICAL:

Fizika tverdogo tela, v. 4, no. 1, 1962, 296 - 297

TEXT: Alternating photoconductivity was observed on CdS crystals with resistivity of 10^6 ohm-cm, which were provided with indium contacts and placed in a high vacuum. This photoconductivity was essentially different from that observed by Harnik and Weisz. The spectral characteristic illustrated by curve $\Delta I/W = f(\lambda)$ clearly shows the change in sign of photoconductivity, which occurs at 520 - 530 m μ . Harnik and Weisz observed such a change at $\lambda > 850$ m μ . $\Delta I/W$ denotes the illumination-induced increase of current related to equal values of luminous energy. The course of the volt-ampere characteristics also reveals this alternation in photoconductivity, which is always positive at weak fields, becoming negative at fields of the order of 10^2 v/cm. Harnik and Weisz found negative photoconductivity at weak and medium fields, with the change to positive at $E > 10^4$ v/cm. The Card 1/2

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B112/B138

A new type of alternating ...

authors succeeded in producing a crystal in which the change in sign could also be observed in dependence on the illuminated part of the crystal. One part displayed this alternating photoconductivity, and the other only positive photoconductivity, independent of λ or voltage applied. The lux-ampere characteristic of the latter is normal, that of the negative photoconductivity shows a rapid increase up to $\sim 15 \cdot 10^{-7}$ a, then it remains constant. Its mechanism may be explained on the assumption of photoexcitation of minority carriers from local levels, which recombine with majority carriers. Applied to the change in photoconductivity, however, this model is complicated by the voltamperage characteristics, which indicate that field not only determines its level, but also the sign. There are 2 figures and 3 non-Soviet references. The two references to English-language publications read as follows: E. Harnik, S. Z. Weisz. Proc. intern. confer. on semicond. phys., Prague, p. 1053, 1960; R. Frerichs. Phys. Rev. 72, 594, 1947.

ASSOCIATION: Institut fiziki AN USSR Kiyev (Institute of Physics AS UkrSSR Kiyev)

SUBMITTED: August 14, 1961

Card 2/2

X

L3106

S/181/62/004/011/001/049

B102/B104

AUTHORS: Bibik, V. F., Borzyak, P. G., and Sarbey, O. G.

TITLE: Emission of non-equilibrium electrons from cadmium sulfide

PERIODICAL: Fizika tverdogo tela, v. 4, no. 11, 1962, 3003 - 3009

TEXT: The characteristics of non-equilibrium electron emission from CdS crystals were investigated and the effect of illumination was measured. In a previous work (FTT, 3, 2186, 1961) it had been shown that the electron emission from CdS is affected by an electric field far stronger than that due to the potential difference applied. An ohmic probe was used to measure this field along the crystals before and after the treatment known as "forming". In the previous work the treatment was given in vacuo whereas now it was carried out in air. This was found to have a substantial effect on the potential distribution within the crystal (Fig. 1). The strong field was observed also in the electrooptical effect. The forming leads to the formation of two zones within the crystal which are separated by a thin layer (0.02-0.06 mm) exhibiting a high potential drop. This separating layer can be made visible in transmitted light ($\lambda 520m\mu$). At Card 1/4 # 5/11-105/100/1-1

Emission of non-equilibrium...

S/181/62/004/011/001/049
B102/B104

the point where the potential drops sharply, the electron emission current has a peak. Further, the forming either increases or decreases resistivity; some crystals showed a kind of rectifying effect. In most cases, the emission increased considerably on being illuminated, whereas in some cases emission occurred already at potentials much lower than those required for observing dark emission. Illumination with $h\nu < 5$ eV produces no electron emission if no potential is applied to the crystal or if no current is flowing through it. The conductivity of some crystals was found to be completely independent of illumination. In order to clarify these effects, the spectral characteristics of photoconductivity and light emission were measured. The results differed between various crystals. For the crystal whose potential distribution is shown in Fig. 3, the energy of the electrons emitted was calculated from the emission current density to be ≈ 1.4 eV. The field strength within this crystal appears to have the order of $2-3 \cdot 10^5$ V/cm, which is high enough for the electrons to collect sufficient energy for emerging into the vacuum. On illumination, photoconducting crystals increase the conduction electron concentration and moreover intensify the field in the emitting regions, thus causing or intensifying the dark emission. Electron photoexcitation in

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Emission of non-equilibrium ...

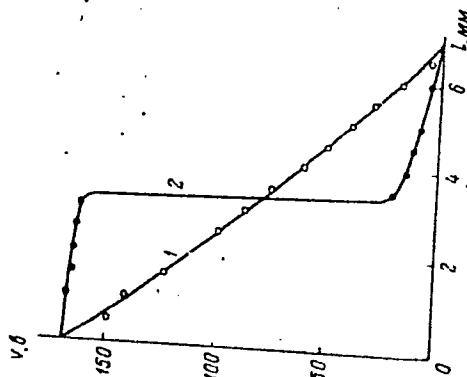
S/181/62/004/011/001/049
B102/B104

the strong-field regions is negligible. There are 6 figures. The most important English-language references are: J. Z. Moll et al. Phys. Rev. Lett. 7, 87, 1961; R. E. Simon, W. E. Spicer, Phys. Rev., 119, 621, 1960; J. Appl. Phys. 31, 1505, 1960.

ASSOCIATION: Institut fiziki AN USSR Kiyev (Institute of Physics AS UkrSSR, Kiyev)

SUBMITTED: April 9, 1962

Fig. 1. Potential distribution along the crystal before (1) and after (2) "forming"



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32845
S/185/62/007/006/008/014
D407/D301

9.4175

AUTHOR:

Bibik, V. F.

TITLE:

Photoelectric emission from cadmium sulfide

PERIODICAL:

Ukrayins'kyi fizychnyy zhurnal, v. 7, no. 6, 1962,
643-650

TEXT: CdS polycrystalline films as well as single crystals were investigated. The study was prompted by 2 earlier experimental works: that of Yu. A. Shuba (Ref. 1: ZhTF, 26, 1104, 1956) and that of J. J. Scheer and J. van Laar (Ref. 3: Phil. Res. Rep., 16, 323, 1961). From the results of these two works it follows that the photoeffect observed by Shuba has to be ascribed to impurities and does not represent the intrinsic photoeffect. By preparing the CdS specimens under cleaner vacuum conditions the author was able to study the intrinsic photoeffect. The specimens were obtained by vacuum-evaporation from a platinum base (in an ultra-high vacuum). The work function of the specimens was reduced by means of adsorption. The photoeffect could be observed from the surfaces,

Photoelectric emission from . . .

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D407/D301

whose work function had been reduced, whereas the photoeffect from the original CdS surfaces was hardly noticeable. It can be assumed that the longwave-side of the intrinsic photoeffect $h\nu_0 > 5.6$ ev.

The quantum-yield characteristics of the 3 types of CdS specimens investigated (polycrystalline films, {1120}-faces, and single crystals) were similar. The thermo-electric work function of the single crystals was 4.15 ev. A study of the optical characteristics (light absorption) of the specimens showed that Hall's constants (Ref. 9: JOSA, 46, 1013, 1956) could be used. It was found that the decrease in the photoelectric work function $\Delta\varphi_{ph} > \Delta\varphi_{th}$ (φ_{th} denoting the thermo-electric work function), although the opposite should be expected. Band-bending was approximately 0.5 ev. The low efficiency of the quantum yield (less than 10^{-3}) of CdS is particularly noted (even with an optimum decrease in the work function); this low efficiency cannot be attributed to the optical properties of CdS. The inequality $\Delta\varphi_{ph} > \Delta\varphi_{th}$ and the low quantum yield can be explained by assuming that the surface photoeffect is predominating and by

Card 2/3

Photoelectric emission from ...

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D407/D301

the increase in the negative surface charge as a result of BaO adsorption. The importance of the observed low quantum efficiency of CdS is stressed. There are 6 figures and 1 table.

ASSOCIATION: Instytut fizyki AN UkrRSR, Kyiv (Institute of Physics of the AS UkrRSR, Kiev)

SUBMITTED: February 27, 1962

Card 3/3

L 11196-63

EWT(1)/EEC(b)-2/BDS/ES(w)-2--AFFTC/ASD/SSD--Pab-4

ACCESSION NR: AP3000605

8/0181/63/005/005/1304/1309

AUTHEOR: Bibik, V. F.

TITLE: Emission of nonequilibrium electrons from illuminated cadmium sulfide

SOURCE: Fizika tverdogo tela, v. 5, no. 5, 1963, 1304-1309

TOPIC TAGS: photoelectric emission, photoconductivity, Cd, S

ABSTRACT: The author studied electron emission from illuminated CdS in order to determine the reason for the occasional absence of correlation between this emission and the spectral characteristic of photoconductivity. The method of measuring emission and the general experimental setup were the same as employed by P. G. Borzyak, G. A. Katrich, and O. G. Sarbey (FTT, vol. 3, p. 2186, 1961) and by V. F. Bibik, P. G. Borzyak, and O. G. Sarbey (FTT, vol. 4, p. 3003, 1962). The author concludes that changes in emission of nonequilibrium electrons from CdS are defined by changes in the field value in the active band and by changes in concentration of electrons in this band. Changes in field value during changes in spectral composition of the light furnish a natural explanation of the occasionally observed absence of correlation between emission points and photoconductivity. The growth of photoconductive currents and emission during illumination of the active band by highly absorbable short-wave light (wave length less than 550 Millimicrons) may be

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ACCESSION NR: AP3000605

controlled by the decline, in a strong field, of near-surface recombinations of photoelectric-exciting carriers. ² "The author considers it his pleasant duty to thank P. G. Borzyak for valuable advice and comments." Orig. art. has: 6 figures.

ASSOCIATION: Institut fiziki AN USSR, Kiev (Institute of Physics, Academy of Sciences UkrSSR)

SUBMITTED: 01Dec62

DATE ACQ: 11Jun63

ENCL: 00

SUB CODE: PH

NO REF SCV: 002

OTHER: 001

ls/WW
Card 2/2

AGEYKIN, V.S.; BARTNOVSKIY, O.A.; BIBIK, V.F.; GORODETSKIY, D.A.;
ISHCHUK, V.A.; KORCHEVOY, Yu.P.; NAUMOVETS, A.G.;
PANCHENKO, O.A.

Eleventh Conference on the Physical Principles of Cathode
Electronics. Radiotekh. i elektron. 9 no.6:1099-1113 Je '64.
(MIRA 17:7)

VENEDIKTOV, M.V.; BIBIK, V.P.

Determining the coefficients of heat conductivity and of the absorption of ultrasonic waves for wet capillary-porous bodies. Inzh. fiz. zhur. 4 no. 11:120-122 N '61. (MIRA 14:10)

1. Gosudarstvennyy pedagogicheskiy institut, g. Stanislav.
(Heat--Conduction) (Absorption of sound)

L 23906-65

EWI(1)/EWI(m)/EPF(c)/EPA(w)-2/T

Pab-10/Pr-4

10P(C)

WW

ACCESSION NR: AP4037180

S/0069/64/026/003/0391/0392

AUTHOR: Bibik, Ye. Ye.; Lavrov, I. S.

TITLE: Magneto-optical effects in magnetite sol

SOURCE: Kolloidnyy zhurnal, v. 26, no. 3, 1964, 391-392

TOPIC TAGS: magnetite sol, magnetic field effect, magneto optical effect, aggregate formation, interparticle potential barrier, optical property, extinction coefficient, sol stability, determination, transparency

ABSTRACT: An investigation was made into the effect of a magnetic field on transparency of magnetite suspensions. Under the action of the magnetic field, thread-like aggregates are formed in an Fe_3O_4 sol. At field intensities up to 40,000 amp/m, this association causes an increase in the extinction coefficient along the direction of the lines of force of the field according to Rayleigh's law, owing to retention of their interparticle potential barriers. When the magnetic field is shut down the sol relaxes and completely recovers its initial optical properties due to the breaking up of the associations to individual particles. This effect indicates a new method for studying the stability of sols. It

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L 23906-65

ACCESSION NR: AP4037180

was found that with a particle size less than 2000A in a field up to 25,000 amp/m, the transparency increases (aggregation has not started) along the lines of force in a stable sol. In this case, the repulsive energy of the particles exceeds the energy of their magnetic dipole reaction. An addition of 150-200 millimoles/liter of NaCl causes the formation of aggregates under the action of a magnetic field. During the first 2-3 minutes after adding sufficient electrolyte to the sol to cause coagulation in 3-5 minutes, partial relaxation is promoted by the action of the magnetic field. Orig. art. has: no graphics.

ASSOCIATION: Leningradskiy tekhnologicheskii institut im. Lensovyeta, Kafedra kolloidnoy khimii (Leningrad Technological Institute, Department of Colloidal Chemistry)

SUBMITTED: 09Jan64

ENCL: 00

SUB CODE: IC, EM

NO REF SOV: 001

OTHER: 005

Cord 2/2

L 5037-66 EWT(1) IJP(c)

ACCESSION NR: AP5024018

UR/0069/65/027/005/0652/0655
541.182:538.114

44.5
AUTHOR: Bibik, Ye. Ye.; Lavrov, I. S. 44.55

TITLE: Stability of dispersions of ferromagnetics 21.44.55

SOURCE: Kolloidnyy zhurnal, v. 27, no. 5, 1965, 652-655

TOPIC TAGS: ferromagnetic material, chemical dispersion, ferroelectric material

ABSTRACT: The authors analyze the dependence of the stability of disperse ferromagnetic systems on the energy of magnetic particle attraction in the light of the Deryagin-Landau stability theory (V. B. Deryagin, L. D. Landau, Zh. eksp. i teoret. fiziki 2, 802, 1941; 15, 662, 1945) and of reported experimental data. The magnetic interaction between the particles has a considerable effect on the stability of such dispersions. The contribution of the magnetic interaction to the total balance of interparticle forces depends on the particle size. By applying an external magnetic field, one can vary the energy of attraction of the particles over a wide range. A comparison of the various components of the particle interaction in magnetite sols indicates that particle solvation and
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ACCESSION NR: AP5024018

the structural-mechanical factor play a substantial part in the stabilization of such sols. It is noted that the forces of repulsion between the particles of the magnetite sol and also between the particles and surface of the sample should be taken into account in developing the domain structure of materials (magnetic metallography). Ferroelectrics, which are electric analogs of ferromagnetics, should have many properties in common with ferromagnetics in highly disperse states, particularly in nonpolar media. Orig. art. has: 2 figures and 4 formulas.

ASSOCIATION: Kafedra kolloidnoy khimii, Leningradskiy tekhnologicheskii institut im. Lensoveta (Department of Colloid Chemistry, Leningrad Technological Institute)

SUBMITTED: 06Jun64

ENCL: 00

SUB CODE: EM, GC

NO REF SOV: 012

OTHER: 006

Card 2/2

OVAKIMOV, V.G.; BIBIKHIN, L.N.; SAYTANOV, A.O.

Changes in the electrocardiogram of rabbits subjected to the chronic action of radioactive zinc following intravenous administration of adrenalin and ammonia inhalation. Med. rad. 8 no.9: 55-61 S'63. (MIRA 17:4)

1. Iz laboratorii radiotoksikologii (zav. - prof. E.B. Kurlyanskaya) Instituta gig'eny truda i professional'nykh zabolevaniy (dir. - deystvitel'nyy chlen AMN SSSR prof. A.A. Letavet) AMN SSSR i Instituta meditsinskoy radiologii AMN SSSR.

BIBIKOV, A.N.; LEPIN, V.P.

New type of rolling mill working stands. Metallurg 9 no.5:35
My '64. (MIRA 17:8)

1. Elektrostal'skiy zavod tyazhelogo mashinostroyeniya.

BIBIKOV, A. P.

USSR/Welding - electrodes .
Electrodes

Aug 1947

"UONI - 13 Electrodes," K. V. Petran', N. M. Kizin, A. P. Bibikov, 6 pp

"Avtogennoye Dalo" No 8

Electrodes with a coating of UONI - 13 permit better alloying of welding metal than electrodes with SiO_2 . This holds true in all cases except welding of Al or Ti. Discusses method of producing UONI - 13 electrodes. Technology and methods of welding with these electrodes. Tables of results and observations of various experimental types of UONI - 13 (e.g., UONI - 13/45, UONI - 13/65, etc.) Also lists some altered forms of UONI - 13; e.g., UONI - 13/B for welding nonmetallic alloys with lead base, etc.

PA 18T14

COMMON ELEMENTS																										COMMON VARIABLES INDEX																									
1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
14 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200 205 210 215 220 225 230 235 240 245 250 255 260 265 270 275 280 285 290 295 300 305 310 315 320 325 330 335 340 345 350 355 360 365 370 375 380 385 390 395 400 405 410 415 420 425 430 435 440 445 450 455 460 465 470 475 480 485 490 495 500 505 510 515 520 525 530 535 540 545 550 555 560 565 570 575 580 585 590 595 600 605 610 615 620 625 630 635 640 645 650 655 660 665 670 675 680 685 690 695 700 705 710 715 720 725 730 735 740 745 750 755 760 765 770 775 780 785 790 795 800 805 810 815 820 825 830 835 840 845 850 855 860 865 870 875 880 885 890 895 900 905 910 915 920 925 930 935 940 945 950 955 960 965 970 975 980 985 990 995 1000																																																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																																																			

LOSHAKOV, A.M., inzh.; BIBIKOV, A.V., inzh.; OBUKHOV, Yu.V., inzh.;
GORYASHCHENKO, Yu.N., ~~tekhnik~~

Use of an A-564 gun for welding studs in an overhead position.
Svar. proizv. no.1:36 Ja '65.

1. Trest "TSentroenergomontazh".

(MIRA 18:3)

LOSHAKOV, A.M., inzh.; BIBIKOV, A.V., inzh.; VASIL'KOV, B.P.; GORYASHCHENKO,
Yu.N.

Welding flanges to pipes simultaneously with two welds. Svar.
proizv. no.3:31-32 Mr '65. (MIRA 18:5)

1. Trest "TSentroenergomontazh".

3/135/62/000/002/005/010
A006/A101

AUTHORS: Ginzburg, G.M., Bibikov, A.V., Engineers

TITLE: Automatic argon-arc welding of fixed 1 X 18 H9T (1Kh18N9T) steel
pipe butts

PERIODICAL: Svarochnoye proizvodstvo, no. 2, 1962, 21 - 23

TEXT: Information is given on a new method of welding fixed 1Kh18N9T steel pipe butts in argon atmosphere developed by the laboratory of "Tsentr-energomon-tazh" Trust. Pipes, 32 x 3 mm in diameter, are welded without beveling the edges, but using a filler wire during the second pass. The process is carried out in two passes on the ATB-M (ATV-M) automatic machine. Pass one, without filler wire, assures full penetration of the seam root; the second pass serves to reinforce the joint. Welding conditions are given in Table 2. The new method does not raise proneness of weld joints to intercrystalline corrosion nor does it impair the structure of the weld metal; it assures high mechanical properties of the weld joints. The assimilation of automatic welding of 32x3 mm diameter pipes and the use of consumable rings for the manufacture of power station pipelines reduces labor consumption for preparative operations of welding and assembly, and increase

Card 1/2

Automatic argon-arc welding ...

S/135/62/000/002/005/010
A006/A101

labor efficiency. There are 3 tables and 5 figures.

ASSOCIATION: Trest "Tsentroenergomontazh" Ministerstva stroitel'stva elektrostansiy SSSR ("Tsentroenergomontazh" Trust of the USSR Ministry of Power Station Building)

Table 2:

a - pass; b - welding speed in m/h; c - wire feed rate in m/h; d - current in amps; e - arc length in mm; f - arc voltage in v; g - argon consumption in l/h; h - for the torch; i - for the blast.

a Проход	b Скорость сварки в м/час	c Скорость подачи проволоки в м/час	d Ток в а	e Длина дуги в мм	f Напряжение дуги в в	Расход аргона в л/час	
						g в горелку	i на поддув
1 11	8 14	— 13-14	85-95 90-100	1,0 2,5-3,0	9-11 12-14	500-600	60-100

Note: Filler wire Св -04 Х19Н11М3 (Sv-04Kh19N11M3) of 1.6 mm in diameter is used.

Card 2/2

GINZBURG, M.G., inzh.; BIBIKOV, A.V.

Semiautomatic argon-arc welding of pipelines. Elek. sta. 33
no.4:27-29 Ap '62. (MIRA 15:7)
(Pipelines--Welding)

BIBIKOV, B.M.

Horse racing

New records.

Kosmos 22, no. 2, 1952

BIBIKOV, D., Lt Col.

BIBIKOV, D.- Listed as author of article, "The triangular Coordinate Scale", published in Voyenny Vestnik, No 2, 1953.
(Voyenny Vestnik, No 17, Dec 53)

SO: SUM 152, 25 June 1954

1. BIEIKOV, D. I.
2. USSR (600)
4. Maritime Territory - Gallinae
7. Some observations of Turnix tanki blanfordii Bogd. in the Maritime Territory.
Biul. MOIP. Otd. biol. 57, No. 5, 1952.
9. Monthly List of Russian Accessions, Library of Congress, May 1953, Uncl.

BIBIKOV D.I.
BIBIKOV, D.I.

Ecology of the Daurian suslik (*Citellus dauricus*). Izv. Irk.gos.
protivochum. inst. 10:3-21 '52. (MIRA 10:12)
(TRANSBAIKALIA--SUSLIKS)

BIBIKOV, D.I.; STOGOV, I.I.

Natural distribution of the gray marmot (*Marmota baibacina*) in
the Tien Shan. Tez.i dokl.konf.Irk.gos.nauch.-issl.protivochum.inst.
no.1:7-8 '55. (MIRA 11:3)

1. Sredne-Aziatskiy nauchno-issledovatel'skiy protivochumnyy institut.
(TIEN SHAN--MARMOTS)

BIBIKOV, D.I.; BIBIKOVA, V.A.;

Study of the wheatear *Oenanthe isabellina* Temm. and its ectoparasites. Zool.zhur. 34 no.2:399-407 Mr-Apr '55. (MLRA 8:6)

1. Sredneaziatskiy nauchno-issledovatel'skiy institut epidemiologii i mikrobiologii.

BIBIKOV, D.I.

Biological observations on the hedgehog *Erinaceus auritus* Gmelin as a
reservoir of *Leptospira* [with English summary in insert]. Zool. zhür.
35 no.7:1059-1063 J1 '56. (MLRA 9:9)

1. Sredneaziatskiy nauchno-issledovatel'skiy institut epidemiologii i
mikrobiologii i otdel parazitologii i meditsinskoy zoologii Instituta
eksperimental'noy meditsiny AMN SSSR.
(Hedgehogs) (Leptospirosis)

BIBIKOV, D.I.; ZHIRNOVA, N.M.

Seasonal changes in some ecological and physiological peculiarities
of *Marmota baibacina* Kastsch. in the Tien Shan (with English sum-
mary in insert). Zool.shur. 35 no.10:1565-1573 '0 '56.
(MLRA 10:1)

1. Sredneaziatskiy nauchno-issledovatel'skiy protivochumnyy institut.
(Tien Shan--Marmots)

BIBIKOV, D.I., kandidat biologicheskikh nauk.

New rodent species of the U.S.S.R. fauna. Priroda 46 no.6:108-109
Je '57. (MLRA 10:7)

1. Sredne-Aziatskiy nauchno-issledovatel'skiy protivochumnyy institut
(Alma-Ata).
(Hamsters)

BIBIKOV, D.I.; STOGOV, I.I.

Ecological factors governing the distribution of the gray marmot
(*Marmota baibacina* Kastsch.) in different zones of the Tien Shan
[with summary in English]. *Biul. Moip. Otd. biol.* 62 no.4:13-18
Jl-Ag '57.

(TIEN SHAN--MARMOTS)

(ZOOLOGY--ECOLOGY)

(MIRA 10:11)

BIBIKOV, D.I.

Storing up and expenditure of fat in marmots. Izv.Irk.gos.
nauch.-issl.protiwochun.inst. 16:32-38 '57. (MIRA 13:7)
(MARMOTS)

BIBIKOV, D.I.

Influence of the snow cover on life of marmots in the Tien Shan;
Biol.MOIP. Otd.biol. 63 no.5:141-142 S-0 '58 (MIRA 11:12)
(TIEN SHAN---MARMOTS)
(SNOW)

PIPIKOV, D. I.

"On the landscape patterns of the plague with a natural focus in Tien Shan."
Page 227

Desyatoye soveshchaniye po parazitologicheskim problemam i prirodnoochuvstvom
i loachnyem. 22-29 Okt'yabrya 1959 g. (Tenth Conference on Parasitological
Problems and Diseases with Natural Foci 22-29 October 1959), Moscow-Leningrad,
1959, Academy of Medical Sciences USSR and Academy of Sciences USSR, No. 1 254pp.
Central Asiatic Anti plague Inst. / Alma Ata

PIREKOV, D. I., DMITRYUK, G. YA., ZVESHIN, A. G., LAUFENT'YEV, A. F.,
KHUMISTOLEVSKIY, V. P.

"Certain characteristics of the plague focus in the Central Asian upland,
and the progress made toward its elimination." page 229

Doplyat' po Sovetskoye na parazitologicheskuyu i poliklinicheskuyu
kollektiyu. 22-29 Okt'yabrya 1959 g. (Ninth Conference on Parasitological
Problems and Diseases with Natural Food 22-29 October 1959), Moscow-Leningrad,
1959, Academy of Medical Sciences USSR and Academy of Sciences U.S.S.R., No. 1
254pp.

Central Asiatic Antiplague Inst. and the Kirgizian Antiplague Station/Alma Ata

BIBIKOV, D.I.

Ecology of the bunting *Emberiza fucata fucata* Pall. Biol. MOIP. Otd.
biol. 65 no.1:49-54 Ja-F '60. (MIRA 13:7)
(KHASANSKIY DISTRICT--FINCHES)

BIBIKOV, D.I.

Migration of marmots. Migr. zhiv. no.3:62-86 '62. (MIRA 16:2)

1. Sredneaziatskiy nauchno-issledovatel'skiy protivochumnyy institut.

(Soviet Central Asia—~~Marmots~~)
(Soviet Central Asia—~~Animal migration~~)

BIBIKOV, D.I.; STOCCOV, I.I.

Materials on mammals of the Chingis-Tau. Biul. MOIP. Otd. biol.
68 no.4:14-23 J1-Ag '63. (MIRA 16:10)

BIBIKOV, D.I.; PETROV, V.S.; KHRUSTSELEVSKIY, V.P.

Some ecological and geographical characteristics of the natural
foci of plague. Zool. zhur. 42 no.9:1306-1316 '63.

(MIRA 16:12)

1. Central Asian Research Anti-Plague Institute, Alma-Ata.

BIBIKOV, D.I., kand. biolog. nauk (Alma-Ata)

Plague and the marmots. Priroda 53 no.2:37-42 '64.
(MIRA 17:2)

NR: AP7001082

AUTHOR: Berendyayeva, E. L.; Bibikov, D. I.; Rapoport, L. P.; Popov, V. K.; Varivodina, T. A. (A, N) SOURCE CODE: UR/0439/66/045/003/0430/0435

ORG: Kirghiz Antiplague Station, Frunze (Kirgizskaya protivochumnaya stantsiya); Central Asian Antiplague Station, Alma-Ata (Sredneaziatskiy protivochumnyi institut)

TITLE: Experience of studying contacts within a population of Altai marmots by means of radioactive tagging

SOURCE: Zoologicheskii zhurnal, v. 45, no. 3, 1966, 430-435

TOPIC TAGS: parasitology, animal parasite, marmot, flea, BIOLOGIC

ABSTRACT: Marmots (*Marmota marmota baibacina*) were collected in central Tyan'-Shan, in the summer of 1952 and 1963 (in doses of 1 μ cu or 0.5 μ cu). Injections of S35 or P32 (in doses of 1 μ cu or 0.5 μ cu) were collected with central counting, per kg of weight). Contacts among marmots after were collected, 118 fleas from surface fleas collected had h. 30 Fleas tagged with a surface fleas collected had h. 30 Some were found 109 m from their release of h. 30 maximum of 500 m away after 42 days.

UDC: 599.322

Card 1/2

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of contact within a given marmot population (and the number of fleas exchanged) depends numerically on the distribution of marmots, their population structure (number and location of occupied burrows), and the number of fleas. Under the following field conditions — sparse marmot population, large number of fleas, many empty burrows — fleas were more widely dispersed (360 m in 30 days) and more frequently exchanged among animals. With a dense population of marmots and relatively few fleas, fleas were found only 120—180 m away from the release point in 30 days. The most frequent contacts were observed among marmots living on the boundary of landscape areas; their movements into areas with more favorable food conditions were traced visually and using the tags. It was shown that in summer, when the animals successively inhabit empty burrows in a neutral zone, fleas are transferred among different marmot groups. It was concluded that the tagging of marmots and fleas is a most promising method of modeling plague epizootics in these animals. Orig. art. has: 3 tables and 3 figures.

[WA-50; CBE No. 14]

[JS]

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 013

Card 2/2

BIBIKOV, D.N.; PETRUNICHEV, N.N. Prinimali uchastiye: DOBROVOL'SKAYA,
V.K., nauchnyy sotrudnik; PEKHOVICH, A.I., nauchnyy sotrudnik.
SHADRIN, G.S., red.; ZABRODINA, A.A., tekhn.red.

[Difficulties caused by ice at hydroelectric power stations;
planning measures for their elimination] Ledovye zatrudneniia
na gidrostantsiakh; proektirovanie meropriiatii po okh ustra-
neniiu. Leningrad, Gos.energ.izd-vo, 1950. 158 p. (MIRA 12:11)
(Hydroelectric power stations) (Ice on rivers, lakes, etc.)

~~BIBIKOV, D.N.~~, starshiy nauchnyy sotrudnik, kand. tekhn. nauk; PERHOVICH, A.I.,
Inzh.

Growth rate of ice under water. Izv. VNIIG 46:207-210 '51.
(MIRA 12:5)

(Ice)

BIBIKOV, D.N.

USSR/Engineering - Hydraulics, Floating Ice Mar 52

"On the Hydraulic Coarseness of Floating Ice," D. N. Bibikov, Cand Tech Sci

"Gidrotekh Stroi" No 3, pp 19-21

Discusses existing formulas for detg dependence of hydraulic coarseness on size and shape of floating ice crystals. Claims that practical application of these formulas is of limited character and deduces new more general formulas as result of expts in Hydro cryo-thermal Lab, VNIIG (All-Union Sci Res Inst of Hydraulic Eng). Formulas are applicable to calns of ice protection for hydroelec stations.

219T20

BIBIKOV, D.N., kandidat tekhnicheskikh nauk.

Calculating the volume and time of bottom ice clearance. Gidr. stroi. 22
no. 6:36-39 J. '53. MLRA 6:6)

(Ice on rivers, lakes, etc.)

BIBIKOV, D.N., kandidat tekhnicheskikh nauk.

Calculation of river-bed heat-loss to the non-freezing water current. Gidr.
stroï. 22 no.10:32-34 0 '53. (MLRA 6:10)
(Rivers--Temperature)

BIBIKOV, D. N.

USSR/Geophysics - Icing

1 Aug 53

"Setting up the Problem of the Ice Phase in Non-Freezing Water Streams," D. N. Bibikov

DAN SSSR, Vol 91, No 4, pp 799-801

Attempts to set up the problem of the ice-formation process of a non-freezing water stream in mathematical form. Finds a system of eqs with boundary conditions sufficient to solve engineering problems. Presented by Acad V. V. Shuleykin 5 Jun 53.

272T40

ABRAHAM, D. N.

"Thermal and Ice Regime of Nonfreezing Water Currents." *Tr. Tekhn. Sci., Leningrad Polytechnic Inst., Leningrad, 1954.* (RAN'okh, Sep 54)

SO: Sum 412, 24 Mar 55

BIBIKOV, D.N., redaktor; KRUKOVSKIY, M.Ya., redaktor; ZABRODINA, A.A.,
tekhnicheskiiy redaktor.

[Floating ice and water temperature problems in water power engineering; collection of articles] Ledotermicheskie voprosy v gidroenergetike; sbornik statei. Moskva, Gos. energ. izd-vo, 1954. 264 p.
(MLRA 7:12)

(Hydroelectric power stations) (Ice on rivers, lakes, etc.)
(Rivers--Temperature)

BIBIKOV, D.N., doktor tekhnicheskikh nauk.

Calculating the distribution of flow of floating anchor ice according
to the stream depth. Gidr.stroitel. 25 no.3:39-40 Ap '56. (MIRA 9:9)
(Ice on rivers, lakes, etc.) (Hydroelectric power stations)

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1629
 AUTHOR BIBIKOV, D.N.
 TITLE On the Problem of the Number of Ice Crystals in Undercooled Water.
 PERIODICAL Dokl. Akad. Nauk, 109, fasc. 6, 1123-1125 (1956)
 Issued: 12 / 1956

According to experimental data the change of temperature of water in the case of increasing crystallization may be expressed as follows: $t = t_0 e^{-(a\tau)^2}$. Here t_0 denotes the temperature of the undercooled water at the initial moment, a - an experimentally to be determined factor, and τ - time. According to D.N. BIBIKOV the spatial increase velocity of the ice in the water amounts to $dV/d\tau = 1,41(2,7 u^{0,47} + 0,32) \sqrt{V}(-t) = p_0 \sqrt{V}$. Here u is the hydraulic quantity of the ice particle (m/sec), V - its volume (mm³/sec), and t - the temperature of the undercooled water. The quantity of ice forming in the water volume V_w on the occasion of the change of the temperature from t_0 to t is then computed. After some computations finally $V_\tau = \left\{ p \left[G(a\tau) - G(a\tau_0) \right] + \sqrt{V_0} \right\}^2$ is found for the volume of the ice particle at the moment τ . Here $G(a\tau)$ and $G(a\tau_0)$ denote values of the GAUSS integral and $p = p_0 \sqrt{\pi/4a}$. If in the first interval of time τ_1 only ice particles of the one fraction V_0 are in the water, and if the ice was formed during the time τ_1 by the increase

Dokl.Akad.Nauk, 109, fasc.6, 1123-1125 (1956) CARD 2 / 2 PA - 1629
 of particles, the total quantity of ice V_T produced in the water during the time τ_1 can be expressed by the expression for V_T multiplied with the number n_1 of the ice particles which were present at the beginning. By generalization the corresponding expression n_k for the k-th time interval is then derived from n_1 . With this expression it is possible to compute the number of ice crystals present in the water at any time, if the change of water temperature caused by the crystallization of ice and the velocity of the increase of these particles are known.

The experimental order for determination of the number of ice crystals consisted of 2 DEWAR vessels and of a thermo pile. A DEWAR vessel stood on a vibrator which was able to perform rocking motions with different periods. The ice was introduced into the vessel which was provided with a thermo pile and filled with undercooled water, after which the temperature was measured by means of an oscillograph. Tests were carried out at -0,95; -0,7; -0,55 and -0,3° and for vibrator oscillations of different velocities. At 150 oscillations per minute the ice particles were in a suspended state. A diagram shows the curves for the modification of water temperature. It follows from the experiments that the number of ice particles in the water remains practically constant.

INSTITUTION: All Soviet Scientific Research Institute "B.E.BEDNEEV" for Hydrotechnics.

BIBIKOV, F.A.; KAPITANAKI, M.V., kand. veter. nauk (Krasnodarskiy kray);
SKOROBAGATCHENKO, I.V.

Veterinary hygienic expertise of poultry products. Veterinariia
41 no.10:86-87 G 164. (MIRA 18:11)

1. Nachal'nik veterinarnogo otдела Krasnodarskoy krayevoy
veterinarnoy laboratorii (for Bibikov). 2. Zaveduyushchiy
otdelom bolezney ptits Krasnodarskoy krayevoy veterinarnoy
laboratorii (for Skorobagatchenko).

BIBIKOV, W.P.: BORISOVA, A.P., veterinarnyy vrach; SAPOZHNIKOV, G.I.;
ADIL'Khanov, G.I., nauchnyy sotrudnik; ALIYEV, A.I., kand. veterin.
nauk

Cases of animal poisoning. Veterinariia 41 no.5:90-92 My '64.
(MIRA 18:3)

1. Zaveduyushchiy khimiko-toksikologicheskim otdelom Beloruskoy respublikanskoy veterinarnoy laboratorii (for Bibikov).
2. Belorusskaya respublikanskaya veterinarnaya laboratoriya (for Borisova).
3. Zaveduyushchiy epizootologicheskim otdelom Chuvashskoy respublikanskoy veterinarnoy laboratorii (for Sapozhnikov).
4. Dagestanskaya nauchno-issledovatel'skaya veterinarnaya stantsiya (for Adil'-khanov, Aliyev).

BIBIKOV, F.A.; GRACHEV, I.I., kand.veterin.nauk

Conditions for the eradication of infectious atrophic rhinitis in swine. Veterinariia 40 no.9:24-25 S '63. (MIRA 17:1)

1. Nachal'nik veterinarnogo otdela Krasnodarskogo krayevogo upravleniya proizvodstva i zagotovok sel'skokhozyaystvennykh produktov (for Bibikob). 2. Krasnodarskaya nauchno-issledovatel'skaya veterinarnaya stantsiya (for Grachev).

PLYASHCHENKO, Sergey Ivanovich; BIBIKOV, Fedor Prokof'yevich;
MATSYUK, F., red.

[Poisonous and injurious plants] IAdovitye i vrednye
rasteniia. Minsk, Urozhai, 1965. 107 p. (MIRA 19:1)

LUXIN, Yu.A.; BIBIKOV, G.G.

Measuring pressure drop in testing mean-pressure city gas
pipelines. Gaz. prom. 9 no.3:16-18 '64. (MIRA 17:9)

LEVIN, S.R.; LUKIN, Yu.A.; BIBIKOV, G.G.; SHERSTENNIKOVA, L.K.

Determining the hydraulic resistances of operating city gas mains.
Gaz. prom. 10 no.4:20-22 '65. (MIRA 18:5)

BIBIKOV, G. N.

А. Ф. Козлов

Схема сложного на магнитном носителе

Н. Н. Гусев,
Л. С. Алексеев,
М. А. Майков

Магнитное управление сложными устройствами с магнитным управлением

Л. В. Леонов,
Н. Г. Марков,
Г. Н. Кайгородов

Детекция ошибок преобразования на магнитном носителе с помощью ферритовых элементов

М. В. Трубников

Математическое моделирование работы системы на магнитном носителе

18 июня
(с 10 до 16 часов)

М. А. Аруст,
Н. Н. Рязань

Применение методов оптического ферритового кодирования

86

Ю. А. Матвеев,
В. И. Поступов

Арифметические устройства ферритовых кофферов

Ю. А. Матвеев

Вычислительные устройства ферритовых элементов

кофферов ЛЭМ

Г. Н. Кайгородов

О контроле передачи в вычислительной сети ЛЭМ

18 июня
(с 18 до 22 часов)

В. В. Анисимов

Получение информации для программирования устройств вычислительной техники

А. А. Кайгородов

Исследование работы вычислительных устройств

Г. Н. Кайгородов

Опыт работы на магнитном носителе с помощью ЛЭМ

report submitted for the Centennial Meeting of the Scientific Technological Society of
Radio Engineering and Electrical Communications in A. S. Popov (VKhIE), Moscow,
6-12 June, 1959

BIBIKOV, Georgiy Mikhaylovich; OSADCHIY, P.G., red.; GONCHAROVA, Ye.A.,
tekhn. red.

[Our green friend] Nash zelenyi drug. Belgorod, Belgorodskoe
knizhnoe izd-vo, 1960. 61 p. (MIRA 14:9)
(Belgorod Province—Forests and forestry)

BIBIKOV, I.; DEREVIANKO, K.; KAZACHKO, V.; KIRICHENKO, I.; KUCHER, N.;
MACHUKHO, A.; NABATNIKOV, P.; SOKOLOV, D.; SIVOKON'Ya; US, V.;
SHCHIGALEV, V.; BURAVENKO, N.; KOVSHAROV, S.; SOKOLOV, S.;
ZAGORUL'KO, S.; TSYBA, M.; POMENKO, I.; LYAKHOVELSKIY, M.

Let us help farmers grow an abundant crop. Grazhd. av. no.3:3
Mr '61. (MIRA 14:3)

(Aeronautics in agriculture)

BIBIKOV, M.M.; YELISEYEV, N.A.; ZHUCHKOV, Ye.N.; NAZAROV, D.M.;
~~SOROKIN~~, V.O., red.; KORKHOVA, Kh.N., red.; GRIBAKIN, D.V.,
red. izd-va; GURDZHIYEVA, A.M., tekhn. red.

[Manual for the study of traffic regulations for sheet
crossings; traffic diagrams] Posobie dlia izucheniia pravil
proezda perekrestkov; skhemy dvizheniia. Pod red. V.O. So-
rokina, Kh.N. Korkhovoii. Leningrad, Gos. avtomobil'naia in-
spektsiia UVD Lenoblgorispolkomov, 1961. 103 p.
(MIRA 15'7)

(Traffic engineering)

USSR

Electrolytic production of sodium stannate. N. P. Fedot'ev and N. N. Bibikov (Correspondence Ind. Inst., Leningrad). *Zh. Prikl. Khim.* 28, 150-55; *J. Appl. Chem. (U.S.S.R.)* 28, 143-9 (1955) (Engl. translation).—A cell consisting of a Sn anode and a Ni-steel cathode sepd. by a ceramic diaphragm was used to investigate the prepn. of Na_2SnO_3 as a function of NaOH concn. and c.d. With a polarized Sn anode, an initial NaOH concn. of 100 g./l., and a c.d. of 5 amp./sq. dm. the current efficiency was 65% and Sn losses 12%. However, these conditions are considered superior, industrially, to the other electrolytic methods (nonpolarized anode) because mannites are not formed in the anolyte, the analytical procedure is reduced to the analysis of Na_2SnO_3 and NaOH, and it can be used for dil. and concd. solns. of Na_2SnO_3 . I. Benicovitz

BIBIKOV, N.N.

B-12

USSR/Physical Chemistry - Electrochemistry.

Abs Jour: Referat. Zhurnal Khimiya, No 3, 1958, 7300.

Author : N.N. Bibikov, N.P. Fedot'yev.

Inst : Lensovet Institute of Technology, Leningrad.

Title : Metal Deposition by Current of Varying Polarity.

Orig Pub: Tr. Leningr. tekhnol. in-ta im. Lensoveta, 1957, vyp. 40,
143-154.

Abstract: The parameter influence of currents of varying polarity (VP) on the upper limit of the working current density i , diffusing capacity and deposit properties was studied at the electrical precipitation of Cu from an acid electrolyte, of Zn from an acid and a zincate electrolytes, and Ni from a sulfate electrolyte. In the cases of processes proceeding with concentrated polarity, i increases with the duration of the period of the current direction exchange and with the ratio between the cathode and anode pulses t_c/t_a in close relation with the equation

C₂

Card : 1/2

-1-

137-58-2-3719D

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 204 (USSR)

AUTHOR: Bibikov, N.N.

TITLE: The Electrolytic Depositing of Metals in Non-cyanide Baths
by Currents of Alternating Polarity (Elektroliticheskoye
osazhdeniye metallov v netsianistykh elektrolitakh tokom
peremennoy polyarnosti)

ABSTRACT: Bibliographic entry on the author's dissertation for the de-
gree of Candidate of Chemical Sciences, presented to the
Leningr. tekhnol. in-t im. Lensoveta (Leningrad Institute
of Technology im. Lensovet), Leningrad, 1957

ASSOCIATION: Leningr. tekhnol. in-t im. Lensoveta (Leningrad
Institute of Technology im. Lensovet), Leningrad

1. Metals- Electrodeposition- Bibliography 2. Alternating
current--Applications

Card 1/1

137-58-4-7862

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 214 (USSR)

AUTHORS: Bibikov, N. N., Kurakina N. P., Ivanov, Ye. V.

TITLE: Intermittent-current Nickel Plating (Nikelirovaniye s primeneni-
yem pereryvov toka)

PERIODICAL: Tekhnol. transp. mashinostroyeniya, 1957, Nr 7, pp 21-23

ABSTRACT: It is noted that the reversal of current that has come into use recently in electroplating is not of adequate efficiency for all processes or fully applicable to them. It was established that in nickel-plating (N) with current reversal, positive results are obtainable only with a positive impulse representing a small quantity of electricity ($\leq 0.5-0.6 \text{ a-c/dm}^2$) and when the ratio of the cathodic and anodic periods is ($t_k/t_a \geq 10/1; 15/1$). Moreover, N with current reversal has the serious shortcoming that the electrolyte may gain in ions of the base metal (Fe). A more efficient method of N was investigated, based on an intermittent current, with an electrolyte of the following composition (in g/liter): $\text{NiSO}_4 \cdot 7\text{H}_2\text{O}$ 250, $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$ 60, H_3BO_3 50, NaCl 5; pH 4.3-4.4; $D_k = 2-2.6 \text{ a/dm}^2$; duration of electrolysis 4-5 sec, length of interruption in current 1 sec, temperature of electrolysis 18-20°C, current efficiency

Card 1/2

137-58-4-7862

Intermittent-current Nickel Plating

about 97 percent. Intermittent-current N results in a coating of lower porosity (0.49 pore per cm^2 surface area) relative to that with coatings produced in the same electrolyte with constant current (0.75 pore per cm^2 surface area). Compressive stress in the coating is diminished, and fatigue and corrosion fatigue resistance of the nickel-plated parts is increased under conditions of loads of alternating sign. Intermittent-current N makes it impossible for Fe ions to accumulate.

A. L.

1. Nickel plating--Electrical factors

Card 2/2

PHASE I BOOK EXPLOITATION

SOV/3968

Bibikov, Nikolay Nikolayevich

Gal'vanicheskiye pokrytiya na toke peremennoy polyarnosti (Electroplating With Alternating-Polarity Current) Moscow, Mashgiz, 1958. 47 p. (Series: Bibliotekha gal'vanotekhnika, vyp. 10)7,000 copies printed.

General Ed.: P.M. Vyacheslavov, Candidate of Chemistry, Docent; Reviewer: F.Ye. Nemtsev, Engineer; Editorial Board: P.M. Vyacheslavov (Chairman), S.Ya. Grilikhes, Candidate of Technical Sciences, and A.M. Yampol'skiy, Engineer; Ed. of this book: S.Ya. Grilikhes; Managing Ed. for Literature on the Design and Operation of Machinery (Leningrad Division, Mashgiz) F.I. Fetisov, Engineer; Ed. of Publishing House: N.Z. Simonovskiy; Tech. Ed.: L.V. Sokolova.

PURPOSE: This book is intended for skilled workers, laboratory technicians, and Foremen of electroplating and electroforming shops.

COVERAGE: The book is the tenth volume of the "Little Library of Electrodeposition" series. It contains data on modern techniques and principles of deposition metals, using a type of alternating current called "alternating-

Card 1/3

Electroplating With Alternating-Polarity Current

SOV/3968

polarity current". Apparatus used in reversing the current and the electro-deposition of various metals with alternating-polarity current are described. No personalities are mentioned. There are 10 references, all Soviet.

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Card 2/3

GUREVICH, Larisa Konstantinovna; BIBIKOV, Nikolay Nikolayevich; ZHUKOVA,
V.I., inzh., red.; GVIRTS, V.L., tekhn.red.

[Copper plating and zinc plating in a fluosilicic acid electrolyte]
Mednenie i tsinkovanie v kremneftoristovodorodnykh elektrolitakh.
Leningrad, Leningr.dom nauchno-tekhn.propagandy, 1959. 21 p. (Ob-
shchestvo po rasprostraneniю politicheskikh i nauchnykh znani
RSFSR. Ser.Zashchitnye pokrytiia metallov, no.5). (MIRA 13:2)
(Copper plating) (Zinc plating) (Electrolytes)

25(1)	PAGE I BOOK EXPLANATION	297/3161
	Машино-технические обобщающие материалы по электрохимии Elektrokhimicheskiye obshchayushchiye materialy po elektrokhemii	
	Sobremennyye tekhnologicheskoye obshchayushchiye materialy po elektrokhemii (Protective, Decorative, and Special Coatings for Metals) Kiev, Mashgiz, 1959. 291 p. 4,200 copies printed.	
	Bibliograf. zadaniya: P. K. Lavrovskiy, M. I. Litvak, and A. P. Eryshev (Resp. Ed.) Mashgiz Publishing House; M. S. Sorokin; Chief Ed. (Southern Division, Mashgiz); V. K. Serdyukov, Engineer.	
	PURPOSE: This book is intended for technical personnel in the field of protective coatings for metals.	
	CONTENTS: The papers in this collection, presented at a conference of the FTO Mashinnoy broid in Odessa, deal with the sedimentation and acceleration of metal-coating and plating processes performed by sprays, electroplating, and other methods. Quality control of protective coatings is also discussed. So personalities are mentioned. References follow several of the papers.	
	Litvakova, T. V., Engineer (Dnepropetrovsk). Application of High-luster Nickel Plating in Mass Production	57
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GOLOVKIN, P.; BIBIKOV, N.

Economize metal in installing electric wiring fittings in apartment houses and buildings serving cultural and public needs. Na stroi.Mosk. 2 no.10:29-31 0 '59. (MIRA 13:2)

1. Glavnyy inzhener Energosbyta Mosenergo (for Golovkin).
2. Starshiy inzhener tekhnicheskogo otdela Energosbyta Mosenergo (for Bibikov).

(Electric wiring)

BIBIKOV, Nikolay Nikolayevich; MASLOV, N.N., kand.tekhn.nauk, retsentsent;
VIACHESLAVOV, P.M., kand.khim.nauk, dotsent, red.; GRILIKHES,
S.Ya., kand.tekhn.nauk, red.vypuska; YAMPOL'SKIY, A.M., inzh.,
red.; ONISHCHENKO, R.N., red.isd-va; BARDINA, A.A., tekhn.red.

[Metal deposition by currents of alternating polarity] Osashde-
nie metallov na toke peremennoi poliarnosti. Izd.2., dop. i
perer. Pod red. P.M.Viacheslavova. Moskva, Mashgiz, 1961. 68 p.
(Bibliotekhka gal'vanotekhnika, no.10).

(MIRA 14:12)

(Electroplating)

FEDOT'YEV, N.P., prof., doktor khim. nauk; BIBIKOV, N.N.;
VYACHESLAVOV, P.M.; GRILIKHES, S.Ya.; ALABYSHEV, A.F.,
doktor tekhn.nauk, prof., retsenzent; ROTINYAN, A.L.,
doktor tekhn.nauk, prof., red.; LEYKINA, T.L., red.izd-
va; CHFAS, M.A., red.izd-va; PETERSON, M.M., tekhn. red.

[Electrolytic alloys]Elektroliticheskie splavy. Pod red.
N.P.Fedot'eva. Moskva, Mashgiz, 1962. 311 p.

(MIRA 15:11)

(Electroplating) (Alloys)

BIBIKOV, N. N.

PHASE I BOOK EXPLOITATION

SOV/6308

Fedot'yev, N. P., Doctor of Chemical Sciences, Professor, N. N. Bibikov, P. M. Vyacheslavov, and S. Ya. Grilikhes

Elektroliticheskiye splavy (Electrolytic Alloys) Moscow, Mashgiz, 1962. 311 p. 12,500 copies printed.

Reviewer: A. F. Alabyshev, Doctor of Technical Sciences, Professor; Ed.: A. L. Rotinyan, Doctor of Technical Sciences, Professor; Eds. of Publishing House: T. L. Leykina and M. A. Chfas; Tech. Ed.: M. M. Peterson; Managing Ed. for Literature on Machine-Building Technology, Leningrad Department, Mashgiz: Ye. P. Naumov, Engineer.

PURPOSE: This book is intended for engineering personnel of plants, scientific research institutes, and design organizations. It may also be useful to students at schools of higher technical education.

Card 1/8

1/2

Electrolytic Alloys

SOV/6308

COVERAGE: The book reviews the theory and practices of depositing protective, protective-decorative, antifriction, heat-resistant, and other special alloy coatings. Considerable attention is paid to Soviet work in the field of electrolytic deposition of alloys. Experimental data obtained by the authors have been widely used in compiling the present book. The authors thank Engineers V. I. Gribel' and G. P. Andreyeva for their assistance. References follow each chapter.

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Card 2/8-

2/2

KHOPERIYA Timur Nikolayevich; BIBIKOV, N.N., red.; TELYASHOV, R.Kh.,
red.izd-va; BELOGUROVA, I.A., tekhn. red.

[Chemical nickel plating on nonmetallic materials] Khimicheskoe nikelirovanie nemetallicheskih materialov. Leningrad, 1963. 21 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriya: Zashchitnye pokrytiia metallov, no.3) (MIRA 16f9)
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Moskva 14 no.1:85-86 Jan-Feb 1952. (CML 22:1)

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1. Gosudarstvennyy Institut po proyektirovaniyu zavodov torfyanoy promyshlennosti
(Peat industry)

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Concrete paver for lining irrigation canals. Gidr. i mel. 17
no.5:40-43 My '65. (MIKA 18:7)

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"Four une histoire de faucilles en Europe sud-orientale."

Report submitted to the 6th Intl. Cong. of the Intl. Union of
Prehistoric and Prohistoric Sciences, Rome, Italy
29 Aug - 3 Sep 1962

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"O nekotorykh voprosakh sinkhronizatsii i rasseleniya tripol'skikh plemen."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences, Moscow, 3-10 Aug 64.

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Iesif IAKevlevich Gumin; obituary. Elek.sta.26 no.12:58 D '55.
(Gumin, Iesif IAKovlevich, 1890-1955) (MIRA 9:4)